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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/856,795	08/14/2001	Arnon Shani	U013484-1	3790

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EXAMINER

JIANG, SHAOJIA A

ART UNIT	PAPER NUMBER
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1617

DATE MAILED: 12/03/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application N .

09/856,795

Applicant(s)

SHANI ET AL.

Examiner

Shaojia A. Jiang

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 September 2002.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 53-107 is/are pending in the application.
- 4a) Of the above claim(s) 64-69, 74, 83-88, 105 and 106 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 53-63, 70-73, 75-82, 89-104 and 107 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some    \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                              | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)          | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____. | 6) <input type="checkbox"/> Other: _____.                                   |

### DETAILED ACTION

This Office Action is a response to Applicant's amendment and response filed on September 13, 2002 in Paper No. 9 wherein claims 1-52 are cancelled and claims 53-107 are newly submitted. Currently, claims 53-107 are pending in this application.

It is noted that Applicant's election with traverse of the invention of species of an alginate polysaccharide, a protein which is gelatin, a pheromone which is gossyplure, and a gellant which a calcium salt solution, in Paper No. 7, submitted February 12, 2002. See the previous Office Action dated May 8, 2002.

Therefore, newly submitted claims 64-69, 74, and 83-88 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim.

The claims have been examined insofar as they read on the elected specie.

Applicant's newly submitted claims 105-106 drawn to the invention of a method for the sustained release of a volatile material and a method for treating a volatile material herein that is independent or distinct from the invention originally claimed of the invention originally drawn to the composition herein and the process for preparing the composition herein. The original invention and the newly claimed invention (claims 105-106) are separate and distinct, related as product and method of use. See MPEP § 806.05(h).

Since applicant has received an action on the merits for the originally presented invention, according to MPEP § 819, the general policy of the Office is not to permit the applicant to shift to claiming another invention.

Therefore, newly submitted claims 105-106 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim.

Applicants' assertion in the response at page 10 that "Examiner has apparently examined the original claims 1-52 rather than the amended claims and thus not addressed the recitation in the amended claims pertaining to the beads being in a dispersion" has been considered but not found persuasive. It has been pointed out in the previous Office Action May 8, 2002 at page 2:

"Applicant's preliminary amendment in response to the Restriction Requirement in Paper No. 7, submitted February 12, 2002 is acknowledged. Claims 2-3 and 25 have been amended."

Thus, it is noted that claims 2-3 and 25 are amended in the preliminary amendment but not the base claim 1. Moreover, "a sustained release dispersion of water insoluble beads" in claim 1 has been examined in the previous Office Action. However, it is noted that it is well settled that recitation of an inherent property of a composition will not further limit claims drawn to a composition. In the instant case, for example, "dispersion" in claim 1 is an inherent property of the composition herein. Thus, "dispersion" is not considered a limitation to water insoluble beads herein.

Applicant's amendment canceling claims 1-52 filed on September 13, 2002 in Paper No. 9 with respect to the rejection of claims 10, 24, and 28 made under 35 U.S.C. 112 second paragraph for the use of the indefinite expressions, of record in the Office Action dated May 8, 2002 have been fully considered and found persuasive to remove the rejection since claims 10, 24, and 28. Therefore, the said rejection is withdrawn.

Applicant's amendment canceling claims 1-52 filed on September 13, 2002 in Paper No. 9 with respect to the rejection of claims 1-2 made under 35 U.S.C. 102(b) as being anticipated by Connick (4,401,456) for reasons of record stated in the Office Action dated May 8, 2002 have been considered and are found persuasive to remove this particular rejection. Therefore, the said rejection is withdrawn.

Applicant's amendment canceling claims 1-52 filed on September 13, 2002 in Paper No. 9 with respect to the rejection of claims 1-12, 19-22, 24-31, and 38-52 made under 35 U.S.C. 103(a) as being unpatentable over Connick (4,401,456) and Nitto Electric Ind Co. (Abstract, JP58121212) in view of Meinke et al. for reasons of record stated in the Office Action dated May 8, 2002 have been considered and are found persuasive to remove this particular rejection. Therefore, the said rejection is withdrawn.

The following is new rejections necessitated by Applicant's amendment filed on September 13, 2002 in Paper No. 9.

***Claim Rejections - 35 USC § 112***

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The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 53-63, 70-73, 75, and 104 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The expression "in respective amounts such that....such that" in claim 53 renders claims 53-63, 70-73, and 75 indefinite since the term "respective" is a relative term. The term "respective" is not defined in the specification and claim. Thus, the scope of the claims is indefinite as the composition encompassed by the claims.

The expression "a slower release rate" in claim 75 renders claim 75 indefinite since the term "slower" is a relative term. The term "slower" is not defined in the specification and claim. The scope of the claims is indefinite since the degree of the slower release rate encompassed by the claim is unclear.

Claim 104 recites the limitation "A dispersion" in the first line of the claim. There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 53-63, 70-73, 75-82, 89-104 and 107 are rejected under 35 U.S.C. 103(a) as being unpatentable over Connick (4,401,456) and Nitto Electric Ind Co. (Abstract, JP58121212) in view of Meinke et al. (Journal of Economic Entomology, 1989, Vol 82, 1830-1835).

Connick discloses water insoluble beads in a sustained release polymer matrix comprising droplets of an oil in water emulsion in a polymeric matrix (see col.2 lines 45-58 and Examples therein), surface active agents, aliginate (the particular polysaccharide), bioactive material (one volatile hydrophobic component herein), and water; and the process for preparing such a sustained release, polymer, and water insoluble beads therein. Connick also discloses the size of beads therein is 0.1-5 mm, 0.8-2 mm, or 0.1-6 mm; and the gellant is a calcium solution; a bioactive material may be herbicide or insecticide. See abstract, col.1, col.3-4, col.5 lines 1-16, Examples 1-14 and claims 1-11.

Nitto et al. discloses a sustained release, polymer, and water insoluble gel-like body comprising sodium polyacrlate compound having at least one epoxy group per molecule, cationic surfactant, volatile substance which is in emulsion form, and water; the volatile substance which may be a perfume repellent, attractant, insecticide, and fungicide, is used in amount of 30% or less based on the total weight of the body. See abstract.

The prior art does not expressly disclose that the particular surfactant may be a protein such as gelatin, that the particular volatile component may be pheromone such as gosspluer.

Meinke et al. discloses that the particular bioactive material, pheromone, is known to be used in a sustained release, polymer, and water insoluble delivery system for western corn rootworm. See abstract and the entire article.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ the particular surfactant such as a protein (gelatin), and employ the particular volatile component such as pheromone (gosspluer) in the instant claimed beads.

One having ordinary skill in the art at the time the invention was made would have been motivated to employ the particular surfactant such as a protein (gelatin) in the instant claimed beads since gelatin is a well known surfactant and well known to be useful in a sustained release, polymer, and water insoluble delivery system in the art. Moreover, the employment of surfactants broadly is known in the sustained release, polymer, and water insoluble beads of Connick and the sustained release, polymer, and water insoluble gel-like body of Nitto et al. Therefore, one of ordinary skill in the art would have reasonably expected that gelatin would be useful in the delivery systems of Connick and Nitto as a surfactant.

Additionally, one having ordinary skill in the art at the time the invention was made would have been motivated to employ the particular volatile component such as pheromone (gosspluer) in the instant claimed beads since the employment of bioactive material broadly such as a perfume repellent, attractant, insecticide, and fungicide, is known in the delivery systems of Connick and Nitto. Pheromone as herbicide or insecticide is also known to be useful in a sustained release, polymer, and water

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insoluble delivery system for western corn rootworm. Therefore, one of ordinary skill in the art would have employed the particular volatile component such as pheromone in the instant claimed sustained release system.

Thus the claimed invention as a whole is clearly prima facie obvious over the combined teachings of the prior art.

Applicant's remarks filed on September 13, 2002 in Paper No. 9 with respect to the rejection of claims 1-12, 19-22, 24-31, and 38-52 made under 35 U.S.C. 103(a) as being unpatentable over Connick (4,401,456) and Nitto Electric Ind Co. (Abstract, JP58121212) in view of Meinke et al. for reasons of record stated in the Office Action dated May 8, 2002 have been fully considered but are moot in view of the new set forth 103(a) rejection above.

Additionally, Applicants argue that Connick does not teach "volatile hydrophobic component" herein. However, Connick clearly discloses bioactive materials broadly such as herbicides and insecticides and many other agents therein which may be in the form of liquids, solids, and gases (see col.4 lines 12-22). Thus, the bioactive materials taught by Connick have covered volatile hydrophobic components herein.

It is noted that the instant atmospheric air in which the instant composition is applied is not considered a limitation to a composition herein since it is well settled that "intended use" of a composition or product, e.g., applying in atmospheric air, will not further limit claims drawn to a composition or product. See, e.g., *Ex parte Masham*, 2 USPQ2d 1647 (1987) and *In re Hack* 114, USPQ 161.

Applicant's arguments regarding that this rejection is hindsight reconstruction of the Applicant's claimed invention have been considered but are not found persuasive. It must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. In re McLaughlin , 170 USPQ 209 (CCPA 1971). See MPEP 2145. In the instant case, Connick' reference has clearly provided the motivation to make the present invention and the other two references have been cited primarily for their teachings regarding the known components in the composition herein.

Therefore, Therefore, motivation to combine the teachings of the prior art cited herein to make the present invention is seen. The claimed invention is clearly obvious in view of the prior art.

Applicant's Examples 1-26 herein of the specification at pages 8-16 have been fully considered with respect to the nonobviousness and/or unexpected results of the claimed invention over the prior art but are not deemed persuasive for the reasons below. These Examples provide no clear and convincing evidence of nonobviousness or unexpected results over the cited prior art since they provide no side-by-side comparison with the closest prior art in support of nonobviousness for the instant claimed invention over the prior art.

For the above stated reasons, said claims are properly rejected under 35 U.S.C. 103(a). Therefore, said rejection is adhered to.

In view of the rejections to the pending claims set forth above, no claims are allowed.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Jiang, whose telephone number is (703) 305-1008. The examiner can normally be reached on Monday-Friday from 9:00 to 5:00.

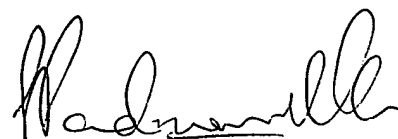
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreenivasan Padmanabhan, Ph.D., can be reached on (703) 305-1877.

The fax phone number for the organization where this application or proceeding is assigned is (703) 308-4556.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-1235.

Shaojia A. Jiang, Ph.D.  
Patent Examiner, AU 1617  
November 25, 2002



SREENI PADMANABHAN  
PRIMARY EXAMINER

12/1/02